UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

KILPATRICK TOWNSEND & STOCKTON LLP / AMAT TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834 EXAMINER

ZERVIGON, RUDY

ART UNIT PAPER NUMBER

1716

DATE MAILED: 08/09/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/893,917	07/11/1997	KARL A. LITTAU	AM2119/T2130	8435

TITLE OF INVENTION: REMOTE PLASMA CLEANING SOURCE HAVING REDUCED REACTIVITY WITH A SUBSTRATE PROCESSING CHAMBER

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	0.2	0.2	\$1510	11/09/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u> SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 or Fax (571)-273-2885

naintenance fee notificat	ions.					correspondence address a arate "FEE ADDRESS" fo	
		ock 1 for any change of address)	Fee(s) Transmittal This	certificate cannot be used t	or domestic mailings of the for any other accompanying ent or formal drawing, mus	
TWO EMBARC. EIGHTH FLOOF	ADERO CENTER	STOCKTON LLP	/ AMAT I her State addr trans	Certi reby certify that this se Postal Service with essed to the Mail smitted to the USPT	ficate of Mailing or Trans Fee(s) Transmittal is being th sufficient postage for fir Stop ISSUE FEE address O (571) 273-2885, on the d	smission g deposited with the United st class mail in an envelope above, or being facsimile ate indicated below.	
	,					(Depositor's name)	
						(Signature)	
						(Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.	CONFIRMATION NO.	
08/893,917	07/11/1997	•	KARL A. LITTAU	•	AM2119/T2130	8435	
TTLE OF INVENTION CHAMBER	N: REMOTE PLASMA	A CLEANING SOURCE	E HAVING REDUCED 1	REACTIVITY WIT	H A SUBSTRATE PRO	CESSING	
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE TOTAL FEE(S) DUE	DATE DUE	
nonprovisional	NO	\$1510	\$0	\$0	\$1510	11/09/2011	
EXAMI	INER	ART UNIT	CLASS-SUBCLASS				
ZERVIGO	N, RUDY	1716	156-345000	l			
. Change of correspondence address or indication of "Fee Address" (37 FR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			(1) the names of up to or agents OR, alternativ (2) the name of a single registered attorney or a 2 registered patent attor	2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is isted, no name will be printed.			
PLEASE NOTE: Unle	ess an assignee is ident in 37 CFR 3.11. Comp	ified below, no assignee	I' a substitute for filing an a (B) RESIDENCE: (CITY	ntent. If an assigned assignment. and STATE OR CO	OUNTRY)	locument has been filed for	
lease check the appropri	ate assignee category or	categories (will not be pr	inted on the patent): \Box	Individual	poration or other private gro	oup entity 🖵 Government	
a. The following fee(s) are submitted: Issue Fee Publication Fee (No small entity discount permitted) Advance Order - # of Copies			A check is enclosed. Payment by credit care	d. Form PTO-2038 i	e the required fee(s), any de		
a. Applicant claims	s SMALL ENTITY statu	ıs. See 37 CFR 1.27.	•••		ENTITY status. See 37 C	10, 1,	
note: The Issue Fee and interest as shown by the re	ecords of the United Sta	tes Patent and Trademark	Office.	ne applicant; a regist	ered attorney or agent; or ti	he assignee or other party in	
A de la lace				ъ.			
Authorized Signature Typed or printed name							
his collection of informand application. Confidential ubmitting the completed form and/or suggestic axt 1450. Alexandria Visional applications in the confidence of the confid	ation is required by 37 Ciality is governed by 35 application form to the ons for reducing this burginia 22313-1450 DO	CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the	on is required to obtain or r 1.14. This collection is est depending upon the indiv e pending Information Office	etain a benefit by the imated to take 12 m idual case. Any con r, U.S. Patent and T	e public which is to file (and inutes to complete, includir inments on the amount of ti rademark Office, U.S. Dep SEND TO: Commissioner	d by the USPTO to processing gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box, 1450	

Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
08/893,917	07/11/1997	KARL A. LITTAU	AM2119/T2130	8435	
57385 75	90 08/09/2011	EXAMINER			
KILPATRICK TOWNSEND & STOCKTON LLP / AMAT TWO EMBARCADERO CENTER EIGHTH FLOOR			ZERVIGON, RUDY		
			ART UNIT	PAPER NUMBER	
SAN FRANCISCO), CA 94111-3834	1716			

DATE MAILED: 08/09/2011

Determination of Patent Term Extension under 35 U.S.C. 154 (b)

(application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 423 day(s). Any patent to issue from the above-identified application will include an indication of the 423 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

	Application No.	Applicant(s)			
	08/893,917	LITTAU ET AL.			
Notice of Allowability	Examiner	Art Unit			
	DUDY ZEDVICON	1716			
	RUDY ZERVIGON	1716			
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this or other appropriate communica IGHTS. This application is subjection	application. If not included tion will be mailed in due course. THIS			
1. 🛮 This communication is responsive to the July 25, 2011 dec	cision of the BPAI.				
2. The allowed claim(s) is/are 22-24,27 and 28.					
 3. Acknowledgment is made of a claim for foreign priority ur a) All b) Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority do 	been received. been received in Application No	·			
International Bureau (PCT Rule 17.2(a)).		3 11			
* Certified copies not received:					
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.					
4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give					
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.					
(a) I including changes required by the Notice of Draftspers	son's Patent Drawing Review(P	TO-948) attached			
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date					
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in th	e Office action of			
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t					
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.					
Attachment(s)	_				
1. Notice of References Cited (PTO-892)	5. Notice of Informa	• • • • • • • • • • • • • • • • • • • •			
2. Notice of Draftperson's Patent Drawing Review (PTO-948)	6. ☐ Interview Summ Paper No./Mail				
3. Information Disclosure Statements (PTO/SB/08),	7. 🗌 Examiner's Ame	ndment/Comment			
Paper No./Mail Date 4.	8. 🛛 Examiner's State	ement of Reasons for Allowance			
of Diological Material	9. 🔲 Other				
/Rudy Zervigon/					
Primary Examiner, Art Unit 1716					

Application/Control Number: 08/893,917 Page 2

Art Unit: 1716

DETAILED ACTION

Allowable Subject Matter

1. Claims 22-24, 27, and 28 are allowed.

2. The following is a statement of reasons for the indication of allowable subject matter:

The July 25, 2011 decision of the BPAI reverses the Examiner's rejections. The reversal is on the

grounds the Examiner has not established that the asserted mixing occurs at location 33 during

residue removal "given that Shang's deposition and cleaning process are mutually exclusive".

See decision at page 3.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Examiner Rudy Zervigon whose telephone number is (571) 272-

1442. The examiner can normally be reached on a Monday through Thursday schedule from 8am

through 6pm EST. The fax phone number for the organization where this application or

proceeding is assigned is 571-273-8300. Any Inquiry of a general nature or relating to the status

of this application or proceeding should be directed to the Chemical and Materials Engineering

art unit receptionist at (571) 272-1700. If the examiner can not be reached please contact the

examiner's supervisor, Parviz Hassanzadeh, at (571) 272-1435.

/Rudy Zervigon/

Primary Examiner, Art Unit 1716